decompressing the demultiplexed plurality of video signals and audio signals;

obtaining a viewer entry;

selecting one each of the plurality of video signals and audio signals based, at least in part, on the viewer entry;

directing a seamless switch to the selected video signal and the selected audio signal;

decoding the information segment address;

retrieving the related information segment at the information segment address; and

presenting the selected video signal, the selected audio signal, and the information segment.

D6 Cont'd.

52. (Amended) The method of claim 51, wherein the information segment address comprises a uniform resource locator, the uniform resource locator specifying a World Wide Web site address on the Internet.

REMARKS

This case was interviewed by telephone conference on 20 September 2001 with Examiner Hai Tran and Supervisory Examiner Andrew Faile. Several issues in the Detailed Action were clarified during the interview as discussed in greater detail below.

Claim Amendments:

Regarding claims 1 and 5, the element "branching codes" is relocated to broaden the scope of the "interactive programming." The element "graphics signals" is removed to broaden the scope of the claim. The addition of "at least one" is requested in the first instance to broaden the switches possible at the direction of the microprocessor and in the second instance to broaden the possible functions underlying the step of selection. With respect to claim 5 specifically, the element "viewer interface" is replaced with "memory" to correct an obvious drafting error. The additional amendments to claims 1 and 5 are requested to correct grammatical errors and clarify the terminology of certain elements with more exacting language.

Regarding claims 2 and 6, the amendment is made to clarify the correspondence between the video signals and camera angles with more exacting language. The element "event" is also

modified by "live" to maintain consistency with the fact that the inventive system concerns live programming.

Regarding claims 3 and 7, an amendment is made to incorporate the graphics signal element removed from claim 1, therefore, the scope of the claims remains the same. Futher, similar to claims 1 and 5, the addition of "at least one" is requested to broaden the possible functions underlying the step of selection. The further amendments to claims 3 and 7 are made to clarify that the system is what further comprises the means for presenting by using more exacting language.

Claim 4 is amended to remove unnecessary language and the term "viewer entry" is broadened to comprise a response.

Amendments to claims 18-23, 25-31, 47-50, and 52 are requested to correct grammatical errors and clarify the terminology of certain elements with more exacting language.

Claim 39 is amended to broaden the claim by removing the limitation of audio signals throughout. Further, additional steps of decompressing and selecting are added to correct an obvious drafting error in omitting these steps.

Claims 43-45 are amended to replace "received" with "transmitted" to maintain consistency with the nomenclature in claims 41 and 42. The breadth of the claims is unchanged as the program stream is received over the same system as it is transmitted.

Claim 46 is amended to broaden the term "gather" by replacing it with the term "obtain." Other amendments to claim 46 are requested to clarify the terminology of certain elements with more exacting language.

Claim 51 in one instance to clarify the relationship between the step of selecting and the purpose of obtaining a viewer entry. The remaining amendments to claim 51 are requested to clarify the terminology of certain elements with more exacting language.

Restriction Issues:

The Office Action Summary and the Detailed Action both indicate, *inter alia*, that claims 16 and 17 are rejected. The substantive discussion in the present Detailed Action does not however address claims 16 and 17. It is Applicants' understanding that only claims 1-12, 18-31, and 39-52 were elected for prosecution in this case, which Applicants attempted to clarify in response to the Office Action dated 28 August 2001 (paper #12). Therefore, Applicants will only address elected claims 1-7, 18-31, and 39-52 in this Response to the present Office Action.

Information Disclosure Statement:

The Detailed Action of 9 May 2001 states that the foreign patents and other documents in Applicants' information disclosure statement have not been considered by the Examiner pursuant to 37 C.F.R. § 1.98. During the telephone conference with the Examiner on 20 September 2001, Applicants learned the Examiner is presently unable to consider the foreign patents and other documents disclosed because the Examiner cannot locate the copies of these documents in the files of the USPTO. The Examiner requested that Applicants provide new copies of the foreign patents and other documents. These copies are provided separate from this Amendment and Response.

Priority Claims:

The Examiner rejected Applicants' priority claims to application serial numbers 08/443,607, filed 18 May 1995 ("the '607 application"); 08/166,608, filed 13 December 1993 ("the '608 application"); and 07/797,298; filed 25 November 1991 ("the '298 application"), with regard to all the claims under consideration in this application. The Examiner did accept Applicants' priority claim to application serial number 08/598,382, filed 8 February 1996 ("the '382 application"). No further detail was provided in the Office Action.

During the telephone interview of 20 September 2001, the Examiner indicated that support could not be found for the elements of "branching codes" and "graphics signals" as presented in claim 1. It appears, however, that the Examiner did not review each of the claims individually in making the priority determination, as these elements only appear in claims 1-7 and are not elements of any other claims in the application. Therefore, many of the claims as originally filed are supported by each of the previous applications and are entitled to the priorities claimed by the Applicants. Further, with the amendments requested herein, additional claims are entitled to priority of 25 November 1991.

Claims 1 and 5 have been broadened by amendment to remove the inclusion of "graphics signals" as an element. Therefore, only claims 3 and 7 now contain "graphics signals" as a claim limitation. As the '608 application is a continuation of the '298 application, the specifications are the same, and therefore, for convenience and to show support in the earliest priority case, references to support in those specifications will be made solely to the '298 application as filed.

The element of a "reception system" in claims 1, 5, and 18 is found in the '607 application, for example, at page 13 and in the '298 application, for example, at page 13.

The element of "live interactive programming" in claims 1, 5, and 18 is found in the '607 application, for example, at page 14 wherein the programming is described as multiple camera angles of a sporting event, which is generally a live broadcast, and in the '298 application, for example, at page 7 wherein the programming is also described as multiple camera angles of a sporting event, which is generally a live broadcast.

The element of "branching codes" in claims 1 and 5 is merely the nomenclature used in the present application to describe commands or codes provided in the programming transmission stream to help the receiver determine the appropriate video signal to select, i.e., to which to "branch." The concept of branching is found in the '607 application, for example, at page 28 wherein the control codes are used by the microprocessor, in this particular embodiment to select the desired video signal based upon the hardware processing branch that is decoding the video signal. Branching codes are also supported in the '607 application at page 24 through its incorporation by reference of U.S. patent number 4,602,279, which discusses the provision of "command signals" into the programming "to control the selection of various interactive information by the home unit." (See, col. 5, ll. 14-21.) The concept of branching codes is also found in the '298 application, for example, through its incorporation by reference at page 8 of U.S. patent number 4,602,279 as described above.

The element of "digital video signals" in claims 1, 5, and 18 is found in the '607 application, for example, at page 12 and in the '298 application, for example, at page 13.

The element of "digital audio signals" in claims 1, 5, and 18 is found in the '607 application, for example, at page 8 and in the '298 application, for example, at page 7, wherein in both instances the audio signals are subsumed as part of the description of the video signal.

The element of a "viewer interface" in claims 1, 5, and 18 is found in the '607 application, for example, at page 14 and in the '298 application, for example, at page 13, in both instances in the form of the "multiple choice controller 9."

The element of a "microprocessor" in claims 1 and 5 is found in the '607 application, for example, at page 24 and in the '298 application, for example, at page 13 in the form of the "signal selector 8," which performs the functions of the microprocessor in the present application.

The element of a "demultiplexer" in claims 1 and 5 is found in the '607 application, for example, at page 14 and in the '298 application, for example, at page 13.

The element of a "decompressor/decoder" in claims 1 and 5 is found in the '607 application, for example, at page 14 and in the '298 application, for example, at pages 13-14.

The element of a "means for displaying" in claims 1, 5, and 18 is found in the '607 application, for example, at page 14 as "monitor 10" and "conventional television," and in the '298 application, for example, at page 13 variously described as "monitor 10," "output 10," and "conventional television."

The element of a "means for playing" in claims 1, 5, and 18 is found in the '607 application, for example, at page 14 as "monitor 10" and "conventional television," and in the '298 application, for example, at page 13 variously described as "monitor 10," "output 10," and "conventional television."

The element of correspondence to "camera angles of a live event" in claims 2, 6, and 26 is found in the '607 application, for example, at page 8 and in the '298 application, for example, at page 7.

The elements of presentation of and response to an "interrogatory" in claim 4 are found in the '607 application, for example, at page 16 and in the '298 application, for example, at pages 15-16.

The elements of a "memory," and storage and use of a "viewer profile," in claim 5 are found in the '607 application, for example, at page 5 and in the '298 application, for example, through its incorporation by reference at page 8 of U.S. patent number 4,602,279. (See, col. 5, ll.14-21.)

The elements of a "satellite transmission system," a "cable distribution system," and a "broadcast transmission system" in claims 19, 20, and 21, respectively, are found in the '607 application, for example, at page 13 and in the '298 application, for example, at page 12.

The element of a video signal corresponding to a main program feed in claim 27, is found in the '607 application, for example, at page 14 and in the '298 application, for example, at page 14.

The element of the video signals corresponding to the audio signals in claim 28, is found in the '607 application, for example, at page 8 and in the '298 application, for example, at page

7, wherein, in both instances, the audio signals are subsumed as part of the description of the video signals, resulting in an inherent correspondence.

In light of the forgoing explications, Applicants believe that at least claims 1, 2, 4-6, 18-21, and 26-28 are supported in the specifications of each of the '607, '608, and '298 applications and are entitled by Applicants' priority claims to an effective filing date of 25 November 2001.

Claim Rejections – 35 U.S.C. § 103:

The examiner rejected claims 1-7, 18-31, and 39-52 pursuant to 35 U.S.C. § 103(a) in view of U.S. patent number 5,600,368 to Matthews, III, (filing date 9 November 1994) and U.S. patent number 5,585,858 to Harper et al. (effective filing date 15 April 1994).

Applicants initially note that in light of their appropriate priority claims to the '298 application, the effective filing date with respect to claims 1, 2, 4-6, 18-21, and 26-28 is 25 November 1991. Therefore, neither Matthews, III nor Harper et al. are appropriate prior art references as applied to these claims. Applicants request the Examiner retract the rejection under § 103 to claims 1, 2, 4-6, 18-21, and 26-28 and instead indicate their allowance.

With respect to the Examiner's rejection of claims 3, 7, 22-25, 29-31, and 38-52, Harper et al. does not disclose the transmission of a plurality of digitally compressed video signals for interactive programming. Harper et al. provides for interactive programming through the provision of a single video signal, in fact, the "same standard video signal of normal conventional programming." (Col. 6, ll. 14-15.) Harper et al. achieves interactivity by sending "multiple interactive audio segments, [and] graphics data . . . ." (Col. 6, ll. 117-18.) Only the audio responses are personalized or interactive. (See, col. 6, ll. 48-51.) The examiner references col. 13, ll. 13-37; col. 15, ll. 1-18; and col. 16, ll. 18-35 of Harper et al. for the propositions of demultiplexing, decompressing, and selecting a plurality of video signals. In fact, each of these sections only discusses the demultiplexing, decompression, and selection of multiple audio branches in the program stream. Harper et al. teaches nothing about the provision of multiple video signals in the program stream or the selection of or switching between such multiple video signals once received. Therefore, the combination of Matthews, III and Harper at al. do not teach or suggest the live interactive digital programming systems and methods providing a plurality of digital video signals.

Further, with respect to the Examiner's rejection of claims 25, 30, and 45, Applicants respectfully traverse the Examiners' Official Notice of the integration of URLs and video signals. Although it may be known to one skilled in the art at present to integrates URLs and video signals, the question is whether it would have been obvious to one skilled in the art at the time of invention of the subject matter of this claim. Applicants suggest that this is not the case. Indeed, for example, co-owned U.S. patent number 5,778,181, which is a pioneering patent in the art of combining URLs and video signals, did not issue until 7 July 1998 and has an effective filing date of 8 March 1996, well after the effective priority date of these claims as acknowledged by the Examiner. Applicants request the Examiner withdraw this rejection in lieu of the provision of some reference and motivation to support this rejection.

With further regard to claims 29 and 51, Harper et al. does not disclose information segment addresses. Upon review of the Examiner's citation of col. 5, ll. 60 – col. 4 [sic] (presumably col. 6), ll. 14 and col. 23, ll. 35 – col. 25, ll. 55, Applicants do not find support of the Examiner's rejection therein. Cols. 5-6 discuss trigger points for calling up the interactive events. These interactive events are audio segments or graphics. Cols. 23-25 discuss, generally, the recall of graphics overlays and interrogatory messages from memory storage in the reception system. neither of these sections discuss the provision of information segment addresses, an ability to decode such addresses, the ability to retrieve the information located at such addresses, or the ability to display the information segments. Such information segments are distinguished from the retrieval of stored graphics or interrogatories by the differentiation of the elements of graphics and interrogatories from information segments and addresses in the separate claims of the present application. Harper et al. does not teach the provision of or decoding of information segment addresses or the retrieval or display of the associated information segments. Applicants therefore request the Examiners rejection of claims 29 and 51 on these grounds likewise be reversed.

Conclusion:

It is believed the Examiner's rejections are inapplicable to the claims presently under consideration in this application for the reasons discussed above. Applicants request that the amendments to the claims as presented herein be entered. Applicants further request the

Examiner's rejections be removed and that notification of allowance of the claims be provided without delay.

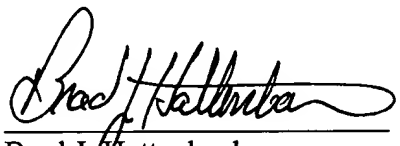
Extension of Time:

Additionally, filed herewith is a Petition for a Two Month Extension of Time and a check for the appropriate fees.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version With Markings to Show Changes Made."

Dated: 9 October 2001.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Please amend claims 1-7, 18-31, 39, and 43-52 as follows.

1. (Amended) A live interactive digital programming system, comprising:

a viewer television reception system for receiving live interactive programming and branching codes, the live interactive programming comprising a plurality of digitally compressed video signals, and audio signals, ~~branching codes and graphics signals,~~ the reception system comprising:

a viewer interface for receiving a viewer entry~~ies~~;

a microprocessor, connected to the viewer interface, for selecting one each of the plurality of video signals and audio signals and directing a seamless switch to at least one of the selected video signal and audio signals at a predetermined time, the selection of the selected video signal and the selected audio signals and the predetermined time of each selection a function of at least one of the branching codes and the received viewer entry~~ies~~;

a demultiplexer~~,~~ for demultiplexing the ~~selected~~ plurality of video signals and audio signals;

a decompressor/decoder~~,~~ connected to the demultiplexer for decompressing the demultiplexed ~~selected~~ plurality of video signals and audio signals;

a means for displaying the selected video signal; and

a means for playing the selected audio signal.

2. (Amended) The live interactive digital programming system of claim 1, wherein the plurality of digitally compressed video signals corresponds, respectively, to a plurality of different predetermined camera angles of a~~n~~ live event.

3. (Amended) The live interactive digital programming system of claim 1, wherein the live interactive programming further comprises a graphics signal wherein the microprocessor selects ~~one of~~ the graphics signals at a predetermined time, the selection of the graphics signal a function of at least one of the branching codes and the received viewer entry~~ies~~,

and wherein the live interactive digital programming system further comprises~~ing~~ a means, connected to the microprocessor, for presenting the selected graphics signal on the display means.

4. (Amended) The live interactive digital programming system of claim 1, wherein the display means presents at least one interrogatory to the viewer, the content of the interrogatory involving program options, and the viewer entry~~ies~~ comprises a ~~correspond to collected entries from the viewer via the viewer interface in~~ response to ~~the~~ at least one interrogatory~~ies~~.

5. (Amended) A live interactive digital programming system, comprising:

a viewer television reception system for receiving live interactive programming and branching codes, the live interactive programming comprising a plurality of digitally compressed video~~,~~ signals and audio signals, ~~branching codes and graphics signals,~~ the reception system comprising:

a memory~~,~~ for storing a viewer profile;

a microprocessor, connected to the memory ~~viewer interface~~, for selecting one each of the plurality of video signals and audio signals and directing a seamless switch to the selected video signal and the selected audio signals at a predetermined time, the selection of the selected video signal and the selected audio signals and the predetermined time of each selection a function of at least one of the branching codes and the stored viewer profile;

a demultiplexer~~,~~ for demultiplexing the ~~selected~~ plurality of video signals and audio signals;

a decompressor/decoder~~,~~ connected to the demultiplexer for decompressing the demultiplexed ~~selected~~ plurality of video signals and audio signals;

a means for displaying the selected video signal; and

a means for playing the selected audio signal.

6. (Amended) The live interactive digital programming system of claim 5, wherein the plurality of digitally compressed video signals correspond, respectively, to a plurality of different predetermined camera angles of a~~n~~ live event.

7. (Amended) The live interactive digital programming system of claim 5, wherein the live interactive programming further comprises a graphics signal wherein the microprocessor selects ~~one of~~ the graphics signals at a predetermined time, the selection of the graphics signal a function of at least one of the branching codes and the stored viewer profile, and wherein the live interactive digital programming system further comprises~~ing~~ a means, connected to the microprocessor, for presenting the selected graphics signal on the display means.

18. (Amended) A live interactive digital presentation system, comprising:

a means for receiving live interactive programming from a digital program stream, wherein the live interactive programming contains a plurality of digital video signals and audio signals;

a viewer interface for receiving a viewer entry~~ies~~;

a microprocessor, connected to the viewer interface, for selecting and seamlessly switching to one each of the plurality of video signals and audio signals based on ~~at least one of~~ the viewer entry~~ies~~;

a means for displaying the selected video signal; and

a means for playing the selected audio signal.

19. (Amended) The live interactive digital presentation system of claim 18, wherein the ~~combined~~ digital program stream is received from a satellite transmission system.

20. (Amended) The live interactive digital presentation system of claim 18, wherein the ~~combined~~ digital program stream is received from a cable distribution system.

21. (Amended) The live interactive digital presentation system of claim 18, wherein the ~~combined~~ digital program stream is received from a broadcast transmission system.

22. (Amended) The live interactive digital presentation system of claim 18, wherein the ~~combined~~ digital program stream is received within a private network.

23. (Amended) The live interactive digital presentation system of claim 18, wherein the combined digital program stream is received within an in-stadium network.

25. (Amended) The live interactive digital presentation system of claim 18, wherein the ~~combined~~ digital program stream is received over the Internet.

26. (Amended) The live interactive digital presentation system of claim 18, wherein the plurality of digital video signals corresponds to a plurality of different predetermined camera angles.

27. The live interactive digital presentation system of claim 18, wherein one of the plurality of digital video signals corresponds to a main program video feed.

28. (Amended) The live interactive digital presentation system of claim 18, wherein each of the plurality of digital video signals corresponds, respectively, to ~~separate~~ each of the plurality of audio signals.

29. (Amended) The live interactive digital presentation system of claim 18, wherein the programming further contains ~~one or more~~ an encoded information segment addresses~~es~~, wherein the information segment addresses~~es~~ specify~~ies~~ ~~one or more addresses~~ the location of an information segments, the system further comprising:

a means for decoding, connected to the receiving means, the information segment addresses~~es~~;

a means for retrieving, connected to the decoding means, the information segments located at the ~~determined~~ information segment addresses~~es~~ and;

wherein the display means presents the selected video signal at the same time as or in ~~as a~~ replacement of ~~for~~ the information segments.

30. (Amended) The live interactive digital presentation system of claim 29, wherein the information ~~address~~ segments address ~~are~~ is a uniform resource locators, the uniform resource locators specifying a World Wide ~~Internet~~ Web site addresses on the Internet.

31. (Amended) The live interactive digital presentation system of claim 29, wherein the information ~~address~~ segments address specifies an entry in a ~~are~~ database indexes accessible via ~~on~~ a communication networks.

39. (Amended) A method for providing live interactive digital programming, comprising ~~the steps of~~:

obtaining a plurality of video signals from a plurality of video cameras, wherein at least one ~~or more~~ of the plurality of video cameras provides ~~relaying~~ a differentiable view of a live event;

~~producing one or more audio signals corresponding to the live event;~~

receiving the plurality of video signals ~~and audio signals~~ in a control studio;

digitally compressing the plurality of video ~~and audio~~ signals;

digitally multiplexing the plurality of video ~~and audio~~ signals into a combined digital program stream;

transmitting the combined digital program stream;

receiving the combined digital program stream at a ~~receive~~ reception site;

digitally demultiplexing the plurality of video ~~and audio~~ signals;

digitally decompressing the plurality of video signals;

selecting at least one of the plurality of video signals; and

displaying the selected video signal ~~on a screen~~.

43. (Amended) The system of claim 39, wherein the combined digital program stream is ~~received~~ transmitted within a private network.

44. (Amended) The system of claim 39, wherein the combined digital program stream is ~~received~~ transmitted within an in-stadium network.

45. (Amended) The system of claim 39, wherein the combined digital program stream is ~~received~~ transmitted over the Internet.

46. (Amended) The method of claim 39, further comprising the steps of:

~~gathering~~ obtaining viewer specific information;

creating a viewer profile with the ~~gathered~~ obtained viewer specific information; and

wherein the step of selecting ~~the video and audio signals~~ is based, at least in part, on the viewer profile.

47. (Amended) The method of claim ~~39~~ 46, further comprising ~~the steps of~~ storing the viewer profile in a database.

48. (Amended) The method of claim 47, wherein the database is located at a site remote from the ~~receive~~ reception site.

49. (Amended) The method of claim 47, wherein the database is located at the ~~receive~~ reception site.

50. (Amended) The method of claim ~~39~~ 46, wherein the step of ~~gathering~~ obtaining viewer specific information further comprises the steps of:

displaying ~~at least one~~ an interrogatory to the viewer, the content of the interrogatory involving program options;

collecting an entry~~ies~~ from the viewer in response to the interrogatory~~ies~~; and

wherein the step of selecting ~~selection of video or audio signals~~ is based, at least in part, on the collected viewer entry~~ies~~.

51. (Amended) A method for providing live interactive digital programming, comprising:

receiving live interactive programming, the live interactive programming comprising a plurality of digitally compressed video signals and audio signals, and ~~one or more~~ at lea5st one

encoded information segment addresses specifying the location ~~one or more addresses~~ of a related information segment;~~s, the reception system comprising:~~

demultiplexing the plurality of video signals and audio signals;

decompressing the demultiplexed plurality of video signals and audio signals;

obtaining a viewer entry~~ies~~;

selecting one each of the plurality of video signals and audio signals based, at least in part, on the viewer entry; ~~and~~

directing a seamless switch to the selected video signal and the selected audio signals;

decoding the information segment addresses;

retrieving the related ~~one or more~~ information segments ~~residing~~ at the ~~determined~~ information segment addresses;

~~demultiplexing the selected video and audio signals;~~

~~decompressing the demultiplexed selected video and audio signals;~~ and

presenting the selected video signal, the selected audio signals, and the information segments.

52. (Amended) The method of claim 51, wherein the information segment addresses ~~are~~ comprises a uniform resource locators, the uniform resource locators specifying a World Wide ~~Internet~~ Web sites address on the Internet.